

**REMARKS**

The amendments have been made to correct obvious typographical errors.

No questions of new matter are raised by the above amendment. Entry of the above amendment is therefore respectfully requested.

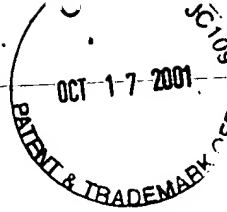
If there are any fees due in connection with the filing of this response, please charge the fees to deposit Account No. 03-0060. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to our Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Luke A. Kilyk", is written over the printed name.

Luke A. Kilyk  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

At page 25, please replace Table 1 with the following new table (please note that the values have been aligned to coordinate with the description, no matter change or addition has been made):

Table 1

Values Derived By Regression Analysis and Impedance Spectroscopy

| MEA   | Regression Analysis     |                         |                                  | *IS                              |
|---|-------------------------|-------------------------|----------------------------------|----------------------------------|
|   | E <sub>1</sub><br>Volts | b<br>mV/dec             | R,<br>V/100<br>A/cm <sup>2</sup> | R,<br>V/100A/<br>cm <sup>2</sup> |
| I – No Treatment (0 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)               | 0.967                   | 0.066                   | 29.4                             | 37                               |
| II – Nafion (0.45 μmole/cm <sup>2</sup> SO <sub>3</sub> H)                  | 1.001                   | 0.062                   | 21.5                             | 17                               |
| III – Aqueous Treatment (~0.1 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)     | 1.005<br>[0.999]        | 0.080<br>[0.048]        | 35.4<br>[38.9]                   | 25<br>[30]                       |
| IV – Aqueous/IPA Treatment (> 0.2 μmoles/cm <sup>2</sup> SO <sub>3</sub> H) | <u>0.999</u><br>[0.999] | <u>0.048</u><br>[0.066] | <u>38.9</u><br>[46.3]            | <u>30</u><br>[17]                |
| V- Kynar Bonded (1.1 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)              | <u>0.999</u>            | <u>0.066</u>            | <u>46.3</u>                      | <u>17</u>                        |

\*IS = Impedance Spectroscopy

At page 26, please replace Table 2 with the following new table (please note that the values have been aligned to coordinate with the description, no matter change or addition has been made):

Table 2

Accessible Platinum Areas as Measured by Cyclic Voltammetry

| MEA   | Accessible Platinum Surface Area, m <sup>2</sup> /g |
|---|---|
| I – No Treatment (0 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)               | 10  |
| II – Nafion (0.45 μmole/cm <sup>2</sup> SO <sub>3</sub> H)                  | 77  |
| III – Aqueous Treatment (~0.1 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)     | 14<br>[62]  |
| IV – Aqueous/IPA Treatment (> 0.2 μmoles/cm <sup>2</sup> SO <sub>3</sub> H) | <u>62</u><br>[85]                                   |
| V- Kynar Bonded (1.1 μmoles/cm <sup>2</sup> SO <sub>3</sub> H)              | <u>85</u>   |

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At page 35, please replace Table 6 with the following new table (please note that the header column justification has been amended for clarification only, no matter change or addition has been made):

Table 6  
Ion Exchange With Cationic Pt(II) Complex

| Sample No. | Aliquot Volume<br>Ml | [Filtrate Pt]<br><u>Filtrate Pt</u><br>Concentration<br>mg/ml | [Fraction Pt]<br><u>Fraction Pt</u><br>Exchanged |
|------------|----------------------|---|--|
| 6386-43-2  | 8                    | 5.7   | 0.62   |
| 6386-43-3  | 12                   | 8.3   | 0.45   |
| 6386-43-4  | 15                   | 9.8   | 0.35   |

Page 32, please replace the paragraph beginning at line 5 and ending at line 11 with the following:

Zonyl FSD, 10 g, was diluted with 50 g of water. The resulting solution contained 5.0 mmoles of surfactant. A 10 g sample of diafiltered VXC 72 with 0.68 mmoles/g of attached  $-C_6H_4SO_3H$  groups was dispersed in 100 cc of an aqueous medium containing 40 weight % isopropanol. The surfactant solution was added over 10 minutes to the stirred dispersion. Stirring was continued for an additional 60 minutes after which the resultant product was isolated by filtration, washed until it was free of chloride ions and dried at 100 °C.[The product was labeled XXX].

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